

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/379,851 | 08/24/99 | JOUTRAS | F 558-9-13-1 |

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| EXAMINER |
|------------|
| POTHIER, D |

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3764 | |

DATE MAILED: 07/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/379,851

Applicant(s)

JOUTRAS ET AL.

Examiner

Denise Pothier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of election and restriction requirements in Paper No. 3 and 5 is acknowledged. The traversal is on the ground(s) that the species are not alternative embodiments of each other. This is not found persuasive because the search required for the diverse species is not entirely coextensive; and inasmuch as the diverse species differ in structure and operation, the patentability of each would likely turn on different grounds. Consequently, the search and examination of the entire application could not be made without serious burden on the Office. Applicants have not admitted that the diverse species are obvious variants; and inasmuch as the species are patentably distinct, the election requirement is proper. If the applicants believe that the species are obvious variants of each other they should state so on the record.

With respect to the restriction requirement in Paper No. 5, applicant argues that the method and apparatus claims are so closely related as not to be separate and distinct since they are both used for the same purpose and that a search for the method will encompass a search for the apparatus. Please see the proper grounds for a restriction in Paper No. 5.

The requirement is still deemed proper and is therefore made FINAL. Claims 13-24 have been withdrawn from consideration.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation, "first section is connected to one of a leg and thigh" in claim 5, lines 1-2, is indefinite since the leg and thigh have become integral components of the claim. To overcome this rejection, applicant should recite -- sized and configured to be connected to one of the leg or thigh --. This rejection applies to other phrases in claim 5 and 6. Please review.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Whitelaw (2,832,334). Whitelaw discloses an orthotic having a jointed limb brace having first and second sections and joint means, means for connecting the sections to the patient on opposite sides of a joint (see straps and brackets), friction means (see Fig. 4 and col. 2, l. 62-70) for varying resistance, the means being connected to the first and section sections adjacent the joint means and means for adjusting the resistance (see col. 2, l. 65-70) the friction means.

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Note, the phrases, "means for connecting" and "means for adjusting" invoked 35 USC 112, 6th paragraph. As such in the alternative, if the means in Whitelaw are not viewed as anticipating applicants means, they are equivalent means since the strap and handle in Whitelaw function equivalently to connect sections of the orthotic to the patient on opposite sides of the joint and to adjust the resistance by drawing two plates closer together.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Airy (5,052,379) in view of Whitelaw. Airy discloses in Figures 1 and 5-12 and in column 2, lines 42-47 an orthotic used in rehabilitative therapy having a jointed limb brace having first and second sections, joint means, means for connecting the sections to the patient on opposite sides of a joint (see straps and sleeve), a resistance means (see Figs. 6, 8-9) for varying resistance, the means being connected to the first and section sections adjacent the joint means and means for adjusting the resistance (see col. 5, l. 1-7) the resistance means. However, Airy does not disclose that the resistance means is a friction means. Whitelaw teaches in Figure 4, in column 1, lines 35-39 and in column 2,

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lines 62-70 an alternative resistance mechanism used in rehabilitative orthotic which include a friction means to adjust the resistance during therapy to a limb. Thus, one skilled in the art would have known to use various resistance means on a rehabilitative orthotic for adjusting the resistance during therapy, including a friction means taught by Whitelaw.

Note, the phrases, "means for connecting" and "means for adjusting" invoked 35 USC 112, 6th paragraph. As such in the alternative, if the means in Airy are not viewed as anticipating applicant's means, they are equivalent means since the strap and sleeves in Airy function equivalently to connect sections of the orthotic to the patient on opposite sides of the joint and to adjust the resistance of the device by reducing of space between two moving objects. In addition, Whitelaw teaches an equivalent means for adjusting resistance. See the above discussion.

8. Claims 2-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Airy in view of Whitelaw as applied to claim 1 above, and further in view of Stark. As discussed above, Whitelaw teaches using two friction members in order to vary the resistance during use. In addition, Airy discloses in Figure 12 and in column 15, lines 1-62 that the means for adjusting includes a control unit (see Fig. 12 and col. 15) with a program and in column 15, lines 24-30 that feedback or a program can be provided to the user. However, Airy does not teach that the program controls the pressure between friction members. Stark teaches in column 21, lines 5-50 that it is known in the orthopedic rehabilitative art to program a control unit to control the resistance between two friction members in order to encourage the user to follow the exercise regiment of

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the physician (col. 21, l. 45-50). Thus, one skilled in the art would have known to include a program on the control unit of Airy that controls and adjusts the resistance between friction members in order to encourage the user to follow the exercise regiment of the physician

As for claim 3, Stark teaches in column 21 that the friction members can be magnetically controlled in order to adjust resistance between the members.

As for claim 4, Whitelaw teaches that a screw is used to drive the friction members together. One skilled in the art would have known to use a motor to drive the screw in order to automate the device for ease of use.

As for claim 5, see Figure 1 of Airy.

As for claim 6, Airy discloses in column 4, lines 43-44 that the device is adapted to the elbow joint. As such, the first section is adapted to be connected to the forearm and the second section is adapted to be connected to the arm.

As for claim 7, Airy discloses in Figures 5-9 and in column 4, line 66 – column 5, line 5 that the resistance means is removably attached to the brace.

As for claims 8-11, Whitelaw teaches in Figure 4 that the friction members have both flat and curved surfaces. Thus one skilled in the art would have known to make effective friction member both flat and curved.

As for claim 12, see the above teaching of Stark. The program creates greater friction pressing the friction members together and are capable pressing friction members together more tightly when the limbs are being moved in a direction aided by weakened muscles.

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Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-2 and 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 5,788,618. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 6 recites two sections and a controllable joint means for varying resistance which includes two friction members and a program controlling the pressure between the friction members.

As for claim 12, see the third paragraph of claim 6 and the fourth paragraph of claim 7.

11. Claims 4, 10 and 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 5,788,618 in view of Whitelaw. Whitelaw teaches using friction disks with a screw mechanism on a rehabilitative orthotic in order to adjust resistance. However, Whitelaw does not disclose that the screw is motor-driven. One skilled in the art would

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have known to include a motor to drive the screw in order to automate the device for ease of use.

As for claims 10-11, Whitelaw teaches the friction members are both flat and curved. Thus one skilled in the art would have known to make effective friction member both flat and curved.

12. Claims 3, 5-6 and 8-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 5,788,618 in view of Stark. Stark teaches in column 21, lines 6-50 that it is known in the art to control resistance on a joint of an orthotic magnetically in order to control the movement between two friction members. Thus, one skilled in the art would have known to use a magnet to drawn the friction members together in order to control movement between the friction members.

As for claims 5 and 6, claims 1-7 of '618 do not disclose to what body part to connect the sections, except around a joint. Thus, one skilled in the art would have known to connect the sections to many joint, such as the knee or elbow, and thus connect the sections to the thigh/leg and forearm/arm in order to rehabilitate the user.

As for claims 8-9, claims 1-7 of '618 disclose two solid surfaces but not whether they are flat or curved. Absent a teaching as to criticality that friction members be curved or flat, this particular arrangement is deemed to have been known by those skilled in the art since the instant specification and evidence of record fail to attribute any significance (novel or unexpected results) to a particular arrangement. In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

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13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ruis (4,235,437) and Bond (5,597,373) disclose the state of the art exercise devices that include controlled device for adjusting resistance during exercising.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise M. Pothier whose telephone number is 703.308.0993. The examiner can normally be reached on Monday-Thursday and alternate Fridays. The fax phone numbers for the organization where this application or proceeding is assigned are 703.308.3580 for regular communications and 703.308.3580 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Everett Williams whose telephone number is 703.305.1708.



Denise Pothier
July 7, 2001